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State Lab Opens Doors to High School Students



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Virginia first lady Dorothy McAuliffe looks into a lab unit Tuesday during a tour of the Division of Consolidated Laboratory Services in Richmond with students from Maggie L. Walker Governor's School and the Chesapeake Bay Governor's School. Students also participated in experiments during the visit, which was part of National Laboratory Week. Story, Page B4



DCLS Tour

To see more images of the lab, click on this story at
TimesDispatch.com

State laboratory allows students to tour, experiment

BY CINDY HUANG

Richmond Times-Dispatch

Virginia high school students put on white lab coats, goggles and blue latex gloves Tuesday to extract strawberry and kiwi DNA from test tubes, set off chain chemical reactions with hydrogen peroxide and identify different types of bacteria at a state laboratory.

As part of National Laboratory Week, six students from Maggie L. Walker Governor's School and 12 students from the Chesapeake Bay Governor's School for Marine and Environmental Science toured the Division of Consolidated Laboratory Services (DCLS) and participated in experiments.

"We want to showcase and highlight the scientific process so students know they can pursue this as a career," said Melody Morton, the sample support group manager at DCLS.

Virginia first lady Dorothy McAuliffe and Secretary of Administration Nancy Rodrigues joined the two tours led by the



BOB BROWN/TIMES-DISPATCH

Lauren Quezada (from left), a Chesapeake Bay Governor's School student, worked on a DNA experiment as Virginia first lady Dorothy McAuliffe and scientist Bryan Tims watched Tuesday during a tour of the Division of Consolidated Laboratory Services.

acting director of DCLS, Denise Toney, and the director of laboratory operations, Willie Andrews.

"We're hoping some of you will come back as employees of the lab," Rodrigues told the students be-

fore the tours started.

Toney led McAuliffe and the students through various labs that test samples from waterways, food products, consumer products, blood samples from newborns and even lottery

tickets.

Through the glass windows of the narrow hallways, students observed scientists as the scientists observed and sorted samples.

Tessa Guinn, a junior at

Maggie Walker, said she's interested in being a chemist or a chemical engineer.

"I think it probably strengthened my love for chemistry," Guinn said, referring to her experience at the lab on Tuesday. "You can see the real-life implications."

The labs were cluttered with beakers, flasks, sample trays, colored Post-it notes, Windex, piles of paper and high-tech equipment. Toney explained how the lab works to identify and track bacteria and viruses to prevent outbreaks and identify common sources.

"We work to prevent the disease, not treat it. That's what doctors are for," Toney explained. "By containing the disease, we're protecting the public from the disease."

Toney said the lab instruments have become sophisticated enough to support testing for a wide variety of agencies, including the Virginia Department of Environmental Quality to the Federal Bureau of Investigation.

"It's even better than 'CSI' and 'NCIS,'" Toney said, referring to the lab instruments.

After the tour, the students participated in small group experiments with scientists from the lab. Students rotated in small groups to conduct DNA extractions, observe a set of chain reactions from a chemical mixture, determine if phosphate was in a sample, and identify bacteria based on biochemical analysis.

Benjamin Wong, also a junior at Maggie Walker, said he's exploring his options for a future in science, technology, engineering and math. He said he is taking advanced-placement chemistry and physics classes and will be doing biomedical and chemical research at Virginia Commonwealth University this summer.

"It's nice to be given the opportunity to be exposed to industry, labs, real jobs," Wong said.

Chuang@timesdispatch.com
(804) 649-6580

Online Photo Gallery:

Governor's School Students Tour State Lab

As a part of National Laboratory Week, six students from Maggie L. Walker Governor's School and 12 students from the Chesapeake Bay Governor's School for Marine and Environmental Science toured the Division of Consolidated Laboratory Services (DCLS) and participated in laboratory experiments.

RELATED ARTICLE: [Virginia's state lab opens its doors to high school students](#)



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Virginia First Lady Dorothy McAuliffe, right, looks into a lab unit during a tour with a group of Governor's School students from Richmond and Tidewater, of the Virginia Division of Consolidated Laboratory Services in Richmond, Va Tuesday, April 22, 2014.



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Virginia First Lady Dorothy McAuliffe, left, listens to Dr. Denise M. Toney, DCLS Laboratory Director, right, during a tour with a group of Governor's School students from Richmond and Tidewater, of the Virginia Division of Consolidated Laboratory Services in Richmond, Va Tuesday, April 22, 2014.



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Lauren Quezada, a student from the Chesapeake Bay Governor's School, left, works on DNA testing during an experiment as Virginia First Lady Dorothy McAuliffe, center, and Bryan Tims, a scientist with DCLS look on inside a lab unit during a tour with a group of Governor's School students from Richmond and Tidewater, of the Virginia Division of Consolidated Laboratory Services in Richmond, Va Tuesday, April 22, 2014.



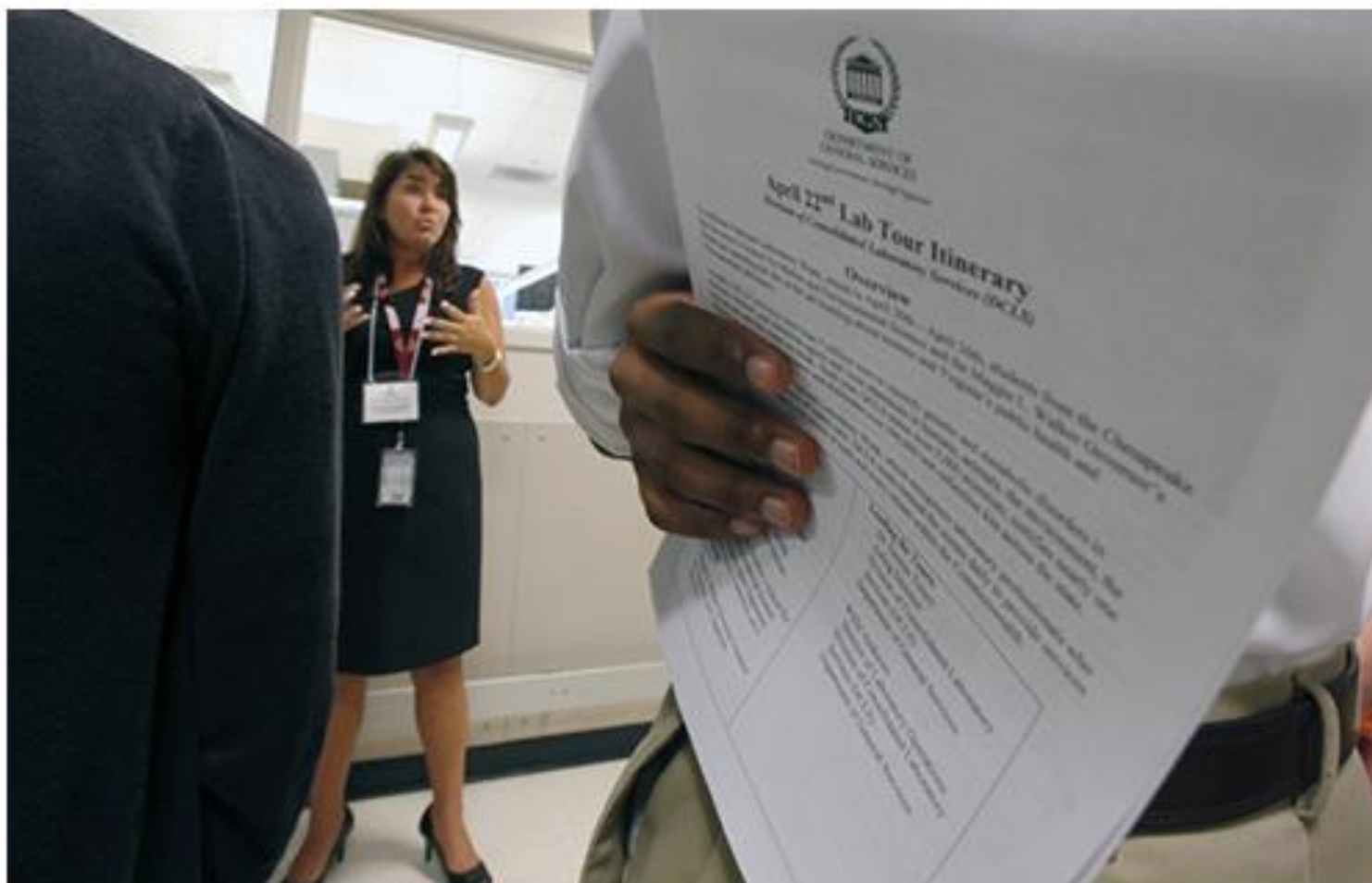
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Ben Wong, a student at Maggie L. Walker Governor's School in Richmond, VA, works on an experiment inside a lab unit during a tour with a group of Governor's School students from Richmond and Tidewater, of the Virginia Division of Consolidated Laboratory Services in Richmond, Va Tuesday, April 22, 2014.



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From left; Dr. Denise M. Toney, DCLS Laboratory Director, Virginia First Lady Dorothy McAuliffe, and DCLS scientist Bryan Tims, watch as Ellie Gale, right, a student at the Chesapeake Bay Governor's School, conducts a DNA experiment during a tour with a group of Governor's School students from Richmond and Tidewater, of the Virginia Division of Consolidated Laboratory Services in Richmond.



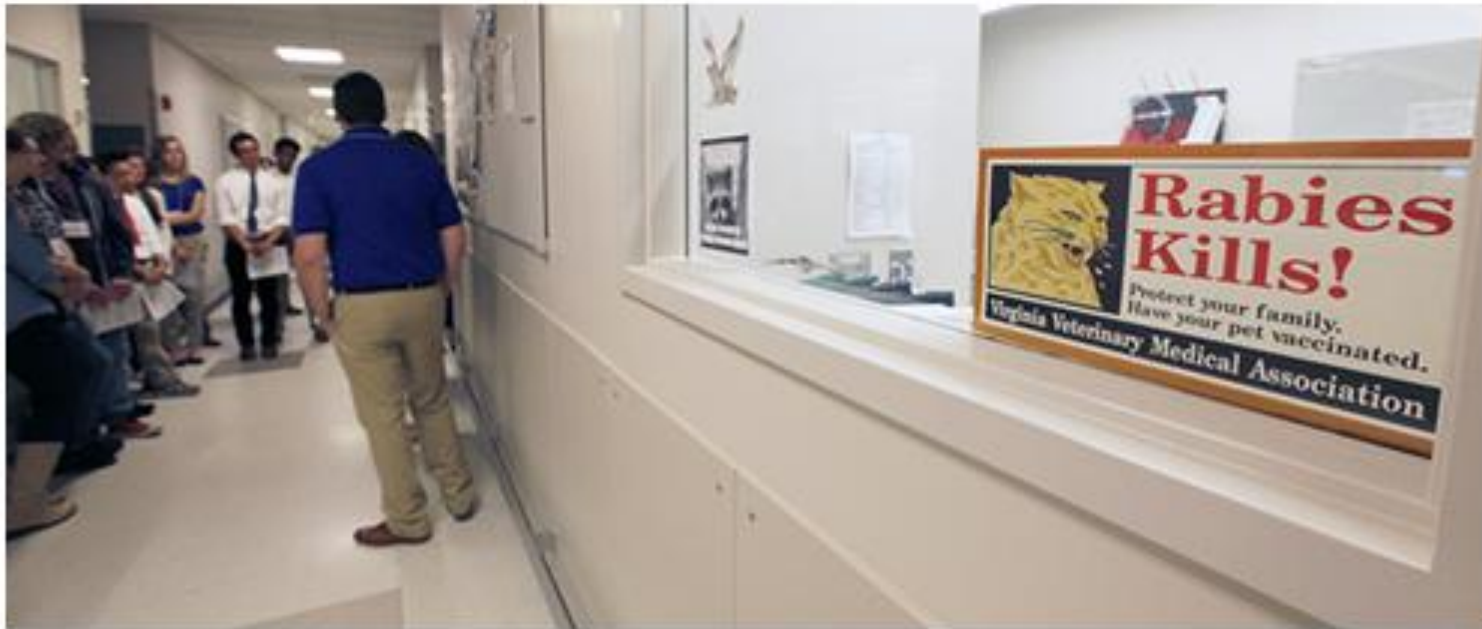
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Dr. Denise M. Toney, DCLS Laboratory Director speaks during a tour with a group of Governor's School students from Richmond and Tidewater, of the Virginia Division of Consolidated Laboratory Services in Richmond, Va Tuesday, April 22, 2014.



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Virginia Secretary of Administration Nancy Rodrigues shows off a pneumonia sample during a tour with a group of Governor's School students from Richmond and Tidewater, of the Virginia Division of Consolidated Laboratory Services in Richmond, Va Tuesday, April 22, 2014.



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A rabies warning on the window of a lab during a tour with a group of Governor's School students from Richmond and Tidewater, of the Virginia Division of Consolidated Laboratory Services in Richmond, Va Tuesday, April 22, 2014.



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Warnings outside a lab during a tour with a group of Governor's School students from Richmond and Tidewater, of the Virginia Division of Consolidated Laboratory Services in Richmond, Va Tuesday, April 22, 2014.



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Scientist Deborah Doyle checks a specimen inside the BIO Safety Level III Lab, one of the lab units seen during a tour with a group of Governor's School students from Richmond and Tidewater, of the Virginia Division of Consolidated Laboratory Services in Richmond, Va Tuesday, April 22, 2014.